

Lock Shelter
Appleton Locks and Dams, ~~Lockkeeper's Residence~~ at Lock 4
Near the lower gate of Lock 4 on the western embankment
Appleton
Outagamie County
Wisconsin

HAER No. WI-84-L

HAER
WIS
44-APPL,
IL-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
Rocky Mountain System Support Office
National Park Service
P.O. Box 25287
Denver, Colorado 80225-0287

HISTORIC AMERICAN ENGINEERING RECORD

APPLETON LOCKS AND DAMS, LOCK SHELTER AT LOCK 4

HAER NO. WI-84-L

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Location: The lock shelter at Appleton Lock 4 of the Appleton Locks and Dams Complex is located near the lower gate of the lock, in the NW1/4, SE1/4, SW1/4, Section 25, T21N, R17E, Civil Town of Grand Chute, Outagamie County, Wisconsin.

UTM: 16/389220/4901570; USGS Quadrangle: Appleton, Wisconsin 7.5' series

Date of Construction: 1983

Engineer: United States Army Corps of Engineers with Contractors

Architect: United States Army Corps of Engineers with Contractors

Present Owner: United States Army Corps of Engineers

Present Use: Office for lock personnel.

Significance: The lock shelter provides shelter for the lockkeeper while on active duty. Further, the lock shelter provides office space and first aid facilities for office personnel. As such the lock shelter functions as part of the daily operation of the Appleton Locks and Dams Complex.

Project Information: This documentation was undertaken in 1995 in accordance with requirements detailed in a June 19, 1994 letter from Gregory D. Kendrick, Chief, History Branch, NPS to Dale Monteith, Acting Chief, Planning Division, USACOE, Detroit District. The Lower Fox system remains basically operational but was placed in caretaker status by the USACOE in 1982. The USACOE plans to divest itself of the Lower Fox system as soon as is feasible; therefore, NPS requested this documentation. All documentation conforms to HAER standards.

Dr. John D. Richards, Principal Investigator; Georgia A. Lusk, Patricia B. Richards, and Robert J. Watson, Project Archivists with Great Lakes Archaeological Research Center, Inc.; Joseph Paskus, Project Photographer.

LOCK SHELTER

A 12 foot square lock shelter is located near the lower gate of Appleton Lock 4. Constructed during the 1980s, the lock shelter is a pre-fabricated structure manufactured by Armco Building Systems of Cincinnati, Ohio. The modular wall panels, which are bolted directly onto a concrete pad adjacent to the lock wall, support nine 16 foot wide roof panels.¹ An entrance door is located on the lock side of the lock shelter and is flanked by a single window. Similar windows are located on the side walls.

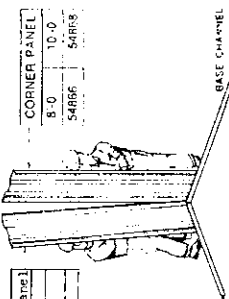
ENDNOTES

- 1 Armco Steel Buildings, Erection Instructions TL-1 Building, sheets ET-115, ET-116, ET-118, ET-119.

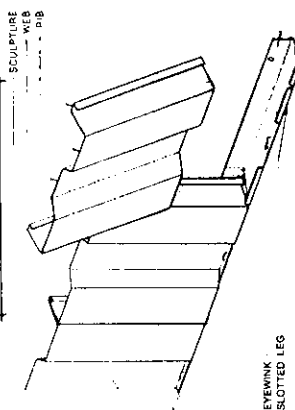
CORNER ERECTION

Slating at a corner assemble a corner panel and typical panel by bolting the interlocking rib to the base channel with bolt size and nut ST183. Plumb the corner and wrench tighten nut and both. Mark door and window locations so that short panels can be installed.

Typical Steelox Panel	CORNER PANEL
8'-0" 10'-0"	8'-0" 10'-0"
54498 54504	54498 54504



PANELS OVER SWING DOORS	
ALL	SIZES
8'	54498
10'	54504

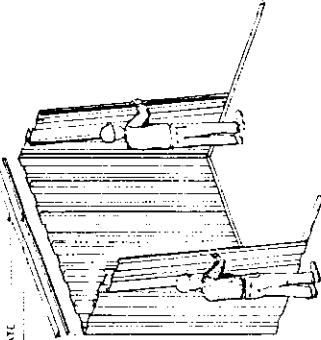


EYEWINK
SLOTTED LEG

WALL ERECTION

Erect end wall panels by placing the bottom of panel on base channel with panel ribs in base channel slots and panel web outside of slotted legs. Panel sculpture must be inside of base channel eyewink. Interlock male rib with the female rib of the preceding panel and bolt interlocked ribs to the base channel.

ENDWALL PLATE
WALL CAP



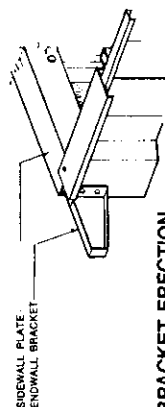
WALL CAP AND PLATE SCHEDULE

BLOG. WIDTH	5'-4"	6'-8"	8'-0"	12'-0"
ENDWALL CAP	58984	59395	60354	59386
REAR OR ENDWALL PLATE	60610	60611	60612	60613
FRONT PLATE	60631	60632	60633	60634

WALL CAP & PLATE ERECTION

Place wall cap and plate on endwall panels. Plumb and square panels. Do not tighten plate bolts. Erect the side walls. One wall from outside the building and the other wall from inside the building. Install sidewall wall caps and plates against corner panels. Top of front plate should be 1/2" above wall panels and rear plate should rest on wall panels. Erect second end wall and wall cap. Position end wall plates flush with front and rear plates, then wrench tighten all plate bolts.

See door and window instructions for installation. For 9'-4" long building field cut sidewall plate and wall cap.



BRACKET ERECTION

Attach end wall brackets (60614 or 60615) flush with top of sidewall plates using two 1/2" x 1/2" THSS at each corner. Field drill using 1/4" drill.

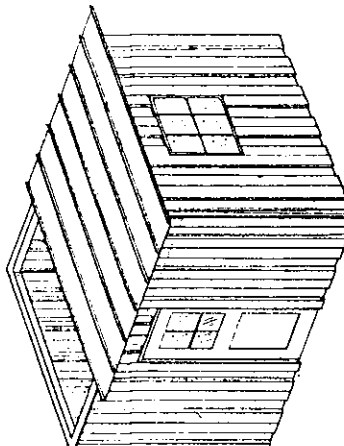
ROOF ERECTION

* If ceiling is to be installed, it must be erected at the same time as is the roof...see std. ceiling detail.

Check building walls for plumb and square. Apply a continuous strip of tape sealant on top of plates. Set the first roof panel with the female rib 8" outside of endwall and with 8" of overhang on each sidewall. Field drill roof panel to match holes in plate and bolt with 1/4" x 3/4" bolts with weather seal washer.

Continue setting roof panels bolting only to the rear plate and keeping ends of panels even. Move rear wall and not the roof panels to maintain the 8" overhang. Again check the walls for plumb and square.

Field Drill and built the roof panels to the front plate and endwall plates. Place fascia over male rib of the last roof panel. *Note: If ceiling is to be installed, do not erect last roof panel at this time...See std. ceiling details. If alternate outer-fascia is used, see ET-121. Attach eave flashing 60535 around building with #10 x 7/8" SMS 16" O.C. Field cut ends at corners for closing tab.



ROOF PANELS	
BLOG. WIDTH	5'-4"
A LOAD	58978 54648 54649 59065
B LOAD	58978 54648 54649 59067
D LOAD	58978 54648 54649 66881
G LOAD	58978 54648 54649 59067
H LOAD	58978 54648 54649 59067

ROOF AND WALL ERECTION TL-1 BUILDING

9/67	ET-119
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